

Remarks

This Application has been carefully reviewed in light of the final Office Action mailed April 14, 2004. As discussed in more detail below, Applicant has made clarifying amendments to Claims 1, 11, 22, 33, and 47. These amendments are not considered narrowing or necessary for patentability, and have not introduced any new matter. Applicant respectfully requests reconsideration and allowance of all pending claims.

I. Clarification Regarding Previous Requirement for Information

In the Office Action, the Examiner indicates that "Applicant's attorney explained to the Examiner in a telephone interview that an IDS was submitted in response to the previously presented rejection regarding a potential issue of public use or on-sale bar." (Office Action, Page 2) For purposes of clarifying the record, Applicant respectfully notes that the information submitted with the previous Response was in response to a requirement for information made by the Examiner in the previous Office Action (as Appendix A to the Response) and was not in the form of an IDS.

II. Claims 1-10 and 33-43 Recite Patentable Subject Matter

The Examiner rejects Claims 1-10 and 33-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicant respectfully disagrees.

At the outset, Applicant notes that it is not clear why the amendments to Claims 1 and 33 presented in the previous Response "incurred a new rejection under 35 U.S.C. § 101," as asserted by the Examiner.¹ In any event, although Applicant believes all pending claims are directed to patentable subject matter without amendment, Applicant has amended independent Claims 1 and 33 to further clarify that these claims recite computer-implemented systems and are directed to patentable subject matter. For consistency, Applicant has also amended Claims 11, 22, and 47, which were not rejected under 35 U.S.C. § 101 in the current Office Action, to further clarify that these claims recite methods performed using one or more computer systems and are directed to patentable subject matter. These clarifying amendments are not narrowing or necessary for patentability, and do not introduce any new

¹ The Examiner states, "The previously pending rejections of claims 11-32 and 47 under 35 U.S.C. § 101 are withdrawn in response to Applicant's amendment of the claims; however, Applicant's amendments to other claims have incurred a new rejection under 35 U.S.C. § 101." (Office Action, Page 2)

matter. For at least these reasons, Applicant respectfully requests reconsideration and allowance of independent Claims 1 and 33 and their dependent claims.

III. Claims 1-47 are Allowable over *Bhaskaran*

The Examiner rejects Claims 1-47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,157,915 by Bhaskaran et al. ("*Bhaskaran*"). Applicant respectfully disagrees.

A. *Bhaskaran* Fails to Disclose, Teach, or Suggest Various Limitations Recited in Claims 1-47

Bhaskaran merely discloses a method and apparatus for collaboratively managing supply chains. In particular, *Bhaskaran* discloses an active collaboration technology in an open architectural framework that delivers information and decision support tools in a timely, contextual, and role sensitive manner to present a collaborative dynamic decision-making capability to a community of role players within a supply chain process. (Abstract; Column 2, Lines 22-27) According to the system disclosed in *Bhaskaran*, role players collaborate through domain task-specific active documents. (Column 2, Lines 32-33) Access to the active documents is based on the role of the user and is governed by access control lists of role players. (Column 2, Lines 39-41)

However, *Bhaskaran*, whether considered alone or in combination with knowledge generally available to one having ordinary skill in the art at the time of invention, fails to disclose, teach, or suggest various limitations recited in Applicant's independent claims. Applicant discusses Claim 1 as an example.

The Examiner relies primarily upon portions of the following passage in *Bhaskaran* as disclosing certain limitations recited in Claim 1:

[T]he supply chain encounters many problems from material constraints from the parts supply vendors to capacity constraints at the production facilities (e.g., sub and final assemblers) to a volatile demand from various global markets. It is thus imperative that the many role players determine, at least, (i) what components need to be delivered to which sub and final assemblers, (i.e., usually depending on where the greatest local demand for the assembled product arises or the need for the production capabilities of the individual sub and final assemblers), (ii) when to deliver the components

to the sub and final assemblers and (iii) when and where to deliver the assembled components to the distributor.

Thus, in order for the supply chain to function properly and efficiently, each role player in the business process must coordinate their activities with other role players so that the supply and demand of the components and assembled product are synchronized within the supply chain.

(Column 4, Lines 1-17; *see* Office Action, Pages 5-6 and 10) This passage generally discloses that supply chain entities are able to collaborate to meet market demand, taking into consideration certain constraints.

However, nowhere does the above passage, nor the remainder of *Bhaskaran*, disclose, teach, or suggest “a culprit” or its associated limitations as specifically recited in Claim 1. At a minimum, *Bhaskaran* fails to disclose, teach, or suggest:

- at a second entity, *receiving a promise for the supplies from the first entity identifying a culprit as a cause for the promise for the supplies not satisfying the request for the supplies to the first entity if the promise for the supplies does not satisfy the request for the supplies to the first entity*;
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, generating a second constraint according to the culprit identified in the promise for the supplies*; and
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, reoptimizing the second entity's production associated with meeting the demand from the third entity using the second constraint generated according to the culprit identified in the promise for the supplies to generate a new request for the supplies to the first entity*.

The Examiner asserts, “In col. 4, lines 1-5, *Bhaskaran* states that the causes, or culprits, of constraints include anything from material constraints to capacity constraints to constraints associated with a ‘volatile demand from various global markets.’” (Office Action, Page 5) Applicant first notes that *Bhaskaran* never uses the term “culprit” and fails to disclose, teach, or suggest any analogous information being communicated between supply chain entities. A constraint may describe a *limitation* (e.g., material constraints, capacity constraints, constraints associated with volatile demand from various global markets, etc.) on the ability of a supply chain entity to satisfy a request for supplies. A constraint does not, however, describe a *cause* of such a limitation. The disclosure in *Bhaskaran* of acting according to generalized constraints present in a supply chain certainly does not disclose, teach, or suggest, as specifically recited in Claim 1:

- at a second entity, *receiving a promise for the supplies from the first entity identifying a culprit as a cause for the promise for the supplies not satisfying the request for the supplies to the first entity if the promise for the supplies does not satisfy the request for the supplies to the first entity*;
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, generating a second constraint according to the culprit identified in the promise for the supplies*; and
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, reoptimizing the second entity's production associated with meeting the demand from the third entity using the second constraint generated according to the culprit identified in the promise for the supplies to generate a new request for the supplies to the first entity*.

The Examiner further states, “Bhaskaran also provides the specific scenario in which one assembler does not have the production capacity to fill a request component demand; therefore, another assembler is notified that he/she needs to make up for this lack of production capacity of the first assembler.” (Office Action, Page 10; citations omitted) Even if true, this statement merely discusses entities in a supply chain collaborating to meet capacity. Nowhere does this scenario disclosed in *Bhaskaran* disclose, teach, or suggest “a culprit,” let alone the various limitations associated with the culprit as specifically recited in Claim 1.

The Examiner further repeatedly references the vague statement that “[t]he overall supply chain planning is optimized and reoptimized for all entities in the supply chain every time a new scenario is proposed,” as disclosing certain limitations recited in Claim 1. Applicant respectfully submits that this vague statement in *Bhaskaran* does not disclose, teach, or suggest the very concrete limitations specifically recited in Claim 1, including, at a minimum:

- at a second entity, *receiving a promise for the supplies from the first entity identifying a culprit as a cause for the promise for the supplies not satisfying the request for the supplies to the first entity if the promise for the supplies does not satisfy the request for the supplies to the first entity*;
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, generating a second constraint according to the culprit identified in the promise for the supplies*; and
- at the second entity, *if the promise for the supplies does not satisfy the request for the supplies to the first entity, reoptimizing the second entity's production associated with meeting the demand from the third entity using the second constraint generated according to the culprit identified in the*

promise for the supplies to generate a new request for the supplies to the first entity.

The Examiner appears to acknowledge that *Bhaskaran* does not disclose “if the promise for the supplies does not satisfy the request for the supplies, generate a second constraint according to the culprit identified in the promise for the supplies” and “if the promise for the supplies does not satisfy the request for the supplies, reoptimize the second entity's production associated with meeting the demand from the third entity using the second constraint generated according to the culprit identified in the promise for the supplies to generate a new request for the supplies,” as recited in Claim 1 prior to the amendments presented in this Response. However, the Examiner argues that “it is old and well known in the area of supply and demand that demand requirements will not fully be met if the supply is not available. In other words if there is a material or production capacity shortage at any level . . . upstream from the distributor . . . , then the distributor has no choice but to re-evaluate his/her ability to provide all demanded products to the global marketplace.” (Office Action, Page 11) Even if the Examiner's statements are true (which Applicant does not necessarily concede), none of this discloses, teaches, or suggests “a culprit,” let alone the various limitations associated with the culprit, as specifically recited in Claim 1.

Based on this above-discussed reasoning, the Examiner asserts that “it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to adapt *Bhaskaran* to reoptimize a second entity's production associated with meeting a demand . . . when it is determined that a first entity can only meet a second constraint due to a culprit impeding a first constraint in order to facilitate the overall optimization and reoptimization of supply chain production (e.g., taking into account a promise constraint and an optimization objective) when it is determined that previously promised demand (e.g., to a global marketplace) cannot be fulfilled by the supply chain as a whole.” (Office Action, Page 11) However, as Applicant demonstrated above, *Bhaskaran* does not disclose, teach, or suggest identification of “a culprit” and its associated limitations as specifically recited in Claim 1. Thus, it certainly would not have been obvious to one having ordinary skill in the art at the time of invention to modify *Bhaskaran* in the manner the Examiner proposes.

B. The Proposed Modifications to *Bhaskaran* are Improper

Moreover, the rejection of Applicant's claims is also improper because the Examiner has not shown the required teaching, suggestion, or motivation in *Bhaskaran* or in the knowledge generally available to those of ordinary skill in the art at the time of the invention to modify *Bhaskaran* in the manner the Examiner proposes. The rejected claims are allowable for at least this reason.

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed above, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference to arrive at the claimed invention. It is clear based at least on the distinctions discussed above that *Bhaskaran* does not, taken as a whole, suggest the claimed invention, taken as a whole.

The M.P.E.P. sets forth the strict legal standard for establishing a *prima facie* case of obviousness based on modification or combination of prior art references. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references where combined) must teach or suggest all the claim limitations." M.P.E.P. § 2142, 2143. The teaching, suggestion, or motivation for the modification or combination and the reasonable expectation of success must both be found in the prior art and cannot be based on an applicant's disclosure. *See Id.* (citations omitted). "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art" at the time of the invention. M.P.E.P. § 2143.01. Even the fact that references *can* be modified or combined does not render the resultant

modification or combination obvious unless the prior art teaches or suggests the desirability of the modification or combination. *See Id.* (citations omitted). Moreover, "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03 (citations omitted).

The governing Federal Circuit case law makes this strict legal standard even more clear.² According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved." *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the "range of sources available . . . does not diminish the requirement for actual evidence." *Id.* Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *In re Mills*, 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. *See also In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (holding a *prima facie* case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine); *In Re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie* case of obviousness. *See In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

² Note M.P.E.P. 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

In addition, the M.P.E.P. and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, "The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art." M.P.E.P. § 2142. The governing Federal Circuit cases are equally clear. "A critical step in analyzing the patentability of claims pursuant to [35 U.S.C. § 103] is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.'" *In re Kotzab*, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000) (citations omitted). In *In re Kotzab*, the court noted that to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. *See id.* *See also, e.g., Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Similarly, in *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board, explaining that the required evidence of such a teaching, suggestion, or motivation is essential to avoid impermissible hindsight reconstruction of an applicant's invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999, 50 U.S.P.Q.2d at 1617 (emphasis added) (citations omitted).

With regard to the proposed modifications to *Bhaskaran*, *Bhaskaran* fails to disclose, teach or suggest "a culprit" and its associated limitations as specifically recited in Claim 1. The Examiner has not cited any other reference as allegedly disclosing "a culprit" and its associated limitations as specifically recited in Claim 1. Thus, it certainly would not have

been obvious to one of ordinary skill in the art at the time of invention to even attempt to modify *Bhaskaran* to include “a culprit” and its associated limitations as specifically recited in Claim 1, as the Examiner proposes. Even more clearly, it certainly would not have been obvious to one of ordinary skill in the art at the time of the invention, based solely on the prior art, *to actually* modify *Bhaskaran* to include “a culprit” and its associated limitations as specifically recited in Claim 1, which would be required to establish a *prima facie* case of obviousness under the M.P.E.P. and the governing Federal Circuit case law.

Accordingly, since the prior art fails to provide the required teaching, suggestion, or motivation to modify *Bhaskaran* in the manner the Examiner proposes, Applicant respectfully submits that the Examiner's conclusions set forth in the Office Action fall well short of the requirements set forth in the M.P.E.P. and the governing Federal Circuit case law for demonstrating a *prima facie* case of obviousness. Thus, Applicant respectfully submits that the Examiner's proposed modification of *Bhaskaran* appears to be merely an attempt, with the benefit of hindsight, to reconstruct Applicant's claims and is unsupported by the teachings of *Bhaskaran*. Applicant respectfully submits that the rejection must therefore be withdrawn.

For at least these reasons, Applicant respectfully requests reconsideration and allowance of independent Claim 1 and its dependent claims. For substantially similar reasons, Applicant respectfully requests reconsideration and allowance of independent Claims 11, 22, 33, and 44-47 and their dependent claims.

Conclusion

Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Christopher W. Kennerly, Attorney for Applicant, at the Examiner's convenience at (214) 953-6812.

Although Applicant believes that no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,

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